

STN:Search History Report

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(FILE 'HOME' ENTERED AT 16:19:20 ON 26 JAN 2009)

FILE 'MEDLINE, SCISEARCH, CAPLUS, BIOSIS' ENTERED AT 16:19:34 ON 26 JAN 2009

L1 3278 S TRANSGEN? (L) CHICKEN
L2 355991 S RETROVIR? OR ALV OR MULV
L3 38319 S OVIDUCT?
L4 14 S L1 (L) L2 (L) L3
L5 10 DUP REM L4 (4 DUPLICATES REMOVED)
L6 10 SORT L5 PY
E IVARIE (L) ROBERT/AU
E HARVEY (L) ALEX/AU
E HARVEY ALEX/AU
L7 54 S E5
E IVARIE ROBERT/AU
L8 59 S E3
L9 32 S E4
L10 126 S L7 OR L8 OR L9
L11 37 S L10 AND L1
L12 31 DUP REM L11 (6 DUPLICATES REMOVED)
L13 13 S L12 AND L2
L14 13 FOCUS L13 1-

=> d ti so au ab l14 6 8 9

L14 ANSWER 6 OF 13 MEDLINE on STN
TI Expression of exogenous protein in the egg white of transgenic chickens.
SO Nature biotechnology, (2002 Apr) Vol. 20, No. 4, pp. 396-9.
Journal code: 9604648. ISSN: 1087-0156.
AU Harvey Alex J; Speksnijder Gordon; Baugh Larry R; Morris Julie A; Ivarie Robert
AB Using a replication-deficient retroviral vector based on the avian leukosis virus (ALV), we inserted into the chicken genome a transgene encoding a secreted protein, beta-lactamase, under the control of the ubiquitous cytomegalovirus (CMV) promoter. Biologically active beta-lactamase was secreted into the serum and egg white of four generations of transgenic chickens. The expression levels were similar in successive generations, and expression levels in the magnum of the oviduct were constant over at least 16 months in transgenic hens, indicating that the transgene was stable and not subject to silencing. These results support the potential of the hen as a bioreactor for the production of commercially valuable, biologically active proteins in egg white.

L14 ANSWER 8 OF 13 MEDLINE on STN
TI Biologically active human interferon alpha-2b produced in the egg white of transgenic hens.
SO Transgenic research, (2003 Oct) Vol. 12, No. 5, pp. 569-75.
Journal code: 9209120. ISSN: 0962-8819.
AU Rapp Jeffrey C; Harvey Alex J; Speksnijder Gordon L; Hu Wei; Ivarie Robert
AB We have previously described the expression of a bacterial protein in the

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egg white of transgenic chickens using a replication-deficient retroviral vector. Here we report the expression of a glycosylated human protein, interferon alpha-2b (hIFN), in the egg white of transgenic hens. The hIFN secreted into the egg white was biologically active as determined by a viral inhibition assay. Purification and carbohydrate analysis of the hIFN expressed in egg white revealed that two of the six major glycosylated hIFN species match the naturally occurring human hIFN glycovariants. These results support the potential of the hen as a bioreactor for the production of commercially valuable, biologically active, and glycosylated proteins in egg white.

L14 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2009 ACS on STN
TI Avian transgenesis: progress towards the promise
SO Trends in Biotechnology (2002), Volume Date 2003, 21(1), 14-19
CODEN: TRBIDM; ISSN: 0167-7799
AU Ivarie, Robert
AB A review. The hen has long held promise as a low cost, high-yield bioreactor for the production of human biopharmaceuticals in egg whites. A typical egg white contains 3.5-4.0 g of protein, more than half of which comes from a single gene (ovalbumin). Harnessing the power of the gene to express a recombinant protein could yield up to a gram or more of the protein in the naturally sterile egg. Accordingly, a major effort has been underway for more than a decade to develop robust methods for modification of the chicken genome. This effort intensified in the mid-1990s when several avian transgenic companies entered the scene. Progress has been made in that time but much remains to be done.